CLONING AND CHROMOSOMAL LOCALIZATION OF FOUR SATELLITE-TYPE DNA SEQUENCES FROM THE HORSE GENOME.

Sabrina Torti, Antonio Tambasco, Mauro Anglana, Solomon Nergadze, Carmen Attolini, Livia Bertoni and Elena Giulotto. Dipartimento di Genetica e Microbiologia, Universitá di Pavia, Pavia - Italia.

Four independent fragments containing tandemly repeated sequences have been isolated from a horse genomic library in the phage vector LambdaGEM-11. The inserts have then been localized on the horse chromosomes by fluorescent in situ hybridization followed by G-banding. 37cen is localized on the centromere of all chromosomes except 2 and 9. M13II maps on centromeric region of the largest acrocentrics (14-23), of two of the small acrocentrics (28,29) and of one submetacentric (13). 2pI is localized at all centromeres except those of chromosomes 4, 5, 11, 12, X, and Y. A chromosome specific repeat is present in 35B which maps on chromosome 16. The hybridization pattern of the four cloned fragments indicates that they are similar to the human satellite sequences and makes them extremely useful for identifying the horse chromosomes.